

Table S1: HIV RNA in spiked semen

| HIV RNA ( $\log_{10}$ copies/mL) |              |        |              |
|----------------------------------|--------------|--------|--------------|
| Input spike                      | Aptima assay |        | RT-PCR       |
|                                  | 2.5-fold     | 5-fold |              |
| 4.10                             | 4.18         | 4.24   | 3.94         |
| 3.80                             | 3.88         | 3.91   | 3.49         |
| 3.49                             | 3.49         | 3.54   | 3.55         |
| 3.19                             | 3.14         | 3.29   | 3.06         |
| 2.89                             | 2.81         | 2.99   | 2.80         |
| 2.59                             | 2.47         | 2.85   | 2.62         |
| 2.29                             | 2.40         | 2.43   | 2.23         |
| 1.99                             | 1.98         | 2.16   | Undetectable |
| 1.69                             | 1.34         | 1.72   | 1.64         |

**Table S1: HIV RNA in spiked semen**

Pre-quantified viral stock spiked was spiked into seminal plasma from an uninfected donor at various dilutions (input spike) and then measured with the Aptima assay at 2.5- and 5-fold dilutions, and in parallel with an in-house RT-PCR assay. Measured HIV RNA in  $\log_{10}$ copies/mL shown.

Table S2: HIV RNA in CSF

| HIV RNA ( $\log_{10}$ copies/mL) |              |              |
|----------------------------------|--------------|--------------|
| Patient                          | Aptima assay | Abbott assay |
| 1                                | <1.48        | 1.72         |
| 2                                | 2.50         | 1.81         |
| 3                                | 1.85         | 1.83         |
| 4                                | 1.61         | 2.02         |
| 5                                | 2.04         | 2.11         |
| 6                                | 1.48         | 2.58         |
| 7                                | 2.80         | 3.95         |
| 8                                | 4.13         | 4.09         |
| 9                                | 4.29         | 4.35         |
| 10                               | 3.92         | 4.44         |
| 11                               | 4.25         | 4.54         |
| 12                               | 5.05         | 4.54         |

**Table S2: HIV RNA in CSF**

HIV RNA in CSF samples from 12 HIV-infected donors were tested in parallel using the Aptima and Abbott assays. Measured HIV RNA in  $\log_{10}$ copies/mL shown.

Table S3: HIV RNA in plasma, DBS and DPS

| HIV RNA (log10copies/mL) |              |              |
|--------------------------|--------------|--------------|
| Plasma                   | DBS          | DPS          |
| 1.54                     | Undetectable | Undetectable |
| 1.56                     | Undetectable | Undetectable |
| 1.57                     | Undetectable | Undetectable |
| 1.59                     | Undetectable | Undetectable |
| 1.75                     | Undetectable | Undetectable |
| 1.85                     | Undetectable | Undetectable |
| 1.89                     | Undetectable | Undetectable |
| 1.89                     | Undetectable | Undetectable |
| 2.13                     | Undetectable | Undetectable |
| 2.16                     | Undetectable | Undetectable |
| 2.21                     | Undetectable | Undetectable |
| 2.23                     | Undetectable | Undetectable |
| 2.28                     | Undetectable | Undetectable |
| 2.56                     | Undetectable | Undetectable |
| 2.60                     | Undetectable | Undetectable |
| 2.70                     | Undetectable | Undetectable |
| 2.86                     | Undetectable | Undetectable |
| 3.25                     | Undetectable | Undetectable |
| 3.30                     | Undetectable | Undetectable |
| 3.37                     | Undetectable | 3.05         |
| 3.52                     | Undetectable | 3.03         |
| 3.54                     | Undetectable | 3.13         |
| 3.56                     | Undetectable | 2.95         |
| 3.59                     | 5.06         | 3.37         |
| 3.75                     | Undetectable | 3.52         |
| 3.79                     | 3.47         | 3.47         |
| 4.14                     | 3.75         | 3.67         |
| 4.16                     | 3.57         | 3.77         |
| 4.26                     | 3.82         | 3.92         |
| 4.32                     | 4.18         | 4.04         |
| 4.52                     | 4.23         | 4.23         |
| 4.82                     | 4.30         | 4.47         |
| 4.99                     | 3.94         | 4.41         |
| 5.00                     | 4.75         | 4.64         |
| 5.10                     | 4.91         | 4.88         |
| 5.36                     | 4.88         | 4.80         |
| 5.68                     | 5.05         | 4.88         |
| 5.70                     | 5.12         | 4.96         |
| 6.10                     | 5.35         | 5.48         |

|      |      |      |
|------|------|------|
| 6.33 | 5.78 | 5.86 |
|------|------|------|

**Table S3: HIV RNA in plasma, DBS and DPS**

HIV RNA in paired plasma, dried blood spot and dried plasma spot samples from 104 HIV-infected donors were measured using the Aptima assay. Measured HIV RNA in  $\log_{10}$ copies/mL for each sample type shown. Samples with undetectable levels of HIV RNA are labeled “undetectable”.